Notebook Series -- Notebooks by Edison
Notebook, N-18-08-13

This notebook was used by Edison in August 1918. The entries pertain to the construction of experimental blanks for disc records. Included are accounts of mixtures of chalk, rosin, and wood flour or cotton flock. Some entries describe the unsatisfactory records produced or offer observations on "the proper way to mix" ingredients. One of the notes indicates that Archie D. Hoffman assisted Edison with the experiments. The pages are unnumbered. Only 8 pages have been used.

Experiment with 3 gal mixer
Aug 13/1918

mixing 4 wood 3 Chalk 1 Rosin

Mixed OK using 1/2 the alcohol having twice the Rosin per CC but total Rosin ~~[illegible]~~ as above about 12 1/2% of total —
Mix OK.

Tried a batch Req amount of Rosin -
250 wood
190 Chalk
56 Rosin —
Dissolved in 1/4 of the amount of alcohol usually used
Came out OK Made a blank which was OK —
but of course not reground
(dried it in air)

finally today -
Mixed in 3 gal mix
4 parts ~~[illegible]~~ Wood flour
3 parts Chalk
1 part Rosin Melted
no alcohol used

Divided the wood into 4 portions of 375 grams each
Put in one part wood & all the Rosin at
1 PM -
1 05 Stopped to clean gob from stirrer Commons & Seals
Remarks charged have put in 2 portions 750 grams

at 110 put in 2nd portion of coaal —

at 115 stopped mill to clean out corners & rocks —

1,35 pm put in 3rd portion of coaal found it semi sticky & OK — Hopper should be lagged —

2 pm put in last portion of coaal

2 25 put in 1st portion of Chalk.

2 40 pm put in 2nd portion of Chalk

2 55 pm 3rd portion Chalk put in.

310 pm - last of Chalk -
Run until 3.25 pm &
removed mix - Cooled
it off & sent to Haffner
to screen & make 2 blanks
found coarse lumps
rich in Resin —

Fried

2700 Chalk
540 Rosin
518 flock -

Method Rosin -

Put all flock in + rosin - at
10 am -

1015 put in 900 gram Chalk
1035 " 900 more
11 am 900 "

1130 Removed - found that
flock not spread but lumpy
chalk not stuck to it from
want of Rosin -

Records made 19 - Very noisy + not filled

The proper way to mix
Formula | Aug 15/1915

540	Melted Rosin
518	Cotton flock
2700	Chalk

Put 1350 grms chalk in + all the Rosin — at 1 PM at 1.25 pm. it was very tenacious dough + gooey together — 1.26 put in 1/3rd of the flock

1.37 pm. put in 1/3rd more of flock

1.50. put in balance of flock

at 2.20 pm flock was all pulled + not discernable the dough being tough + tenacious

at 2 20 pm put in 450 grams Chalk -

2.40 pm put in 450 more chalk

3 05 put in last of Chalk

Run till 3 35 pm & removed

Under micro fibres scarcely seen all well distributed throughout the Chalk -

Towards the end became rather dry & present mixer having a clearance well not breaks up the 1/8 size lumps hence its lumpy & this shows up when blank made if there was some spring to mixer paddles the mix would be perfect -

This shows that to distribute & pull apart the flock fibres it's essential to work the mixture so that at first a tenacious dough is formed. When the flock is added & its this sticky dough that pulls apart the flock balls & separates the fibres. Without this dough the flock cannot be mixed at all.